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NASA'S SHARP Program Celebrates 20 Years of Excellence

NASA and Modern Technology Systems, Inc., Riverdale, MD, have selected 200 high school students to work at NASA field installations in the 2000 Summer High School Apprenticeship Research Program (SHARP).

SHARP is an intensive science and engineering apprenticeship program specifically designed to attract and increase under-represented students' participation and success rates in mathematics, science and engineering courses, as well as to encourage career paths that help build a pool of under-represented science and engineering professionals in the workplace.

Celebrating its 20th year, the eight-week summer program is sponsored by NASA's Education Division and participating NASA installations.

Five students will be at NASA Wallops for this year's program that began on June 19 and will continue through August 11. The students are: Philip Baldwin, Jo Young, Mitchell Nedab, Gregory Johnson and Juan Avila.

New Images Suggest Present-Day Sources of Liquid Water on Mars

In what could turn out to be a landmark discovery in the history of Mars exploration, imaging scientists using data from NASA's Mars Global Surveyor spacecraft have recently observed features that suggest there may be current sources of liquid water at or near the surface of the red planet.

The new images show the smallest features ever observed from martian orbit — the size of an SUV. NASA scientists compare the features to those left by flash floods on Earth.

"We see features that look like gullies formed by flowing water and the deposits of soil and rocks transported by these flows. The features appear to be so young that they might be forming today. We think we are seeing evidence of a ground water supply, similar to an aquifer," said Dr. Michael Malin, principal investigator for the Mars Orbiter Camera on the Mars Global Surveyor spacecraft at Malin Space Science Systems (MSSS), San Diego, CA. "These are new landforms that have never been seen before on Mars."

The findings will be published in the June 30 issue of Science magazine.

Although the program is primarily for underrepresented groups such as women, African-Americans, Native Alaskans, Native Americans, Hispanics, Pacific Islanders and persons with disabilities, NASA seeks diversity in all student support programs. Consequently, all eligible, talented high school students are encouraged to apply to the program.

Since 1980, approximately 2,914 SHARP apprentices have participated in the program and more than 3,300 NASA employees have served as SHARP mentors. Participating students are assigned to work with a NASA mentor in a specific area of science or technology, gaining hands-on research experience and earning a salary.

SHARP incorporates NASA's education goals and objectives for education excellence by involving the educational community in endeavors to inspire America's students, create learning opportunities and enlighten inquisitive minds.

"Twenty-eight years ago the Mariner 9 spacecraft found evidence — in the form of channels and valleys — that billions of years ago the planet had water flowing across its surface," said Dr. Ken Edgett, staff scientist at MSSS and co-author of the paper in Science. "Ever since that time, Mars science has focused on the question, 'Where did the water go?' The new pictures from Global Surveyor tell us part of the answer — some of that water went under ground, and quite possibly it's still there."

The gullies observed in the images are on cliffs — usually in crater or valley walls — and are made up of a deep channel with a collapsed region at its upper end (an "alcove") and at the other end an area of accumulated debris (an "apron") that appears to have been transported down the slope. Relative to the rest of the martian surface, the gullies appear to be extremely young, meaning they may have formed in the recent past.

If these gullies were on Earth they would be at latitudes roughly between New Orleans, Louisiana, and Point Barrow, Alaska, in the northern hemisphere; and Sydney, Australia, to much of the Antarctic coast in the south.

Wallops Shorts.....

A NASA Nike-Orion sounding rocket was successfully launched from Wallops Island on June 21.

The student experiment, part of NASA's education initiative, was to investigate the effects of short duration space flight on the physiology of *Drosophila* (fruit flies). During the flight, the flies' activity, wing beat frequency and respiration were monitored and video taped.

The principal investigator was Dr. Tony Keller, University of Vermont. The payload was recovered.



PAO Digital Photo.

Mark Miller, University of Vermont examines the student payload that was launched June 21 on a Nike-Orion sounding rocket. The payload was recovered and returned to Chincoteague by the vessel, "Catchum".

Fire Department Responses

June 15 - June 21

Aircraft Stand-bys — 45

Aircraft Emergency — 1

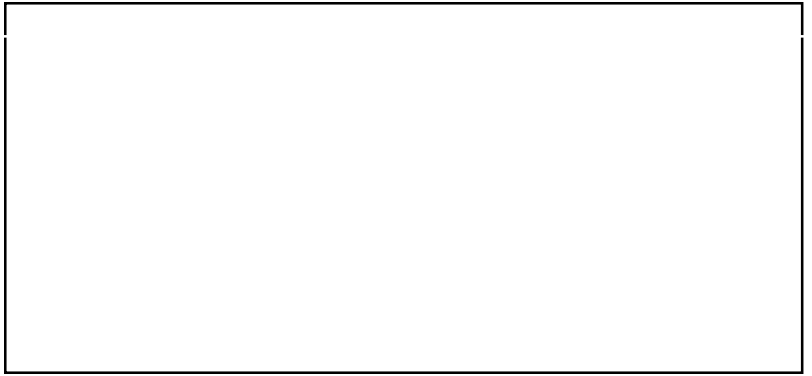
Fire Alarms — 7

Ambulance Calls — 2

Mutual Aid Assistance — 2

Medical assistance calls to the Chincoteague Medical Center.





"Five Partners"



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